



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,137	01/04/2002	Masaki Kurihara	Q67940	3139

7590 12/11/2003
SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

CHU, JOHN S Y

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,137

Applicant(s)

KURIHARA ET AL.

Examiner

John S. Chu

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the amendment filed September 29, 2003.

1. The rejection under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,379,859 is **withdrawn** in view of the amendment to claim 1 wherein Formula (I) has been deleted.
2. The provisional rejection under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17-19 of copending Application No. 10/084,204 is **withdrawn** in view of the amendment to claim 1 which cancels the compound of Formula (I).
3. The rejection under 35 U.S.C. 102(e) as being clearly anticipated by SUZUKI et al is **withdrawn** in view of the amendment to claim 1 as stated above.
4. The rejection under 35 U.S.C. 103(a) as being unpatentable over KAWATA et al in view of UETANI et al '657 is **withdrawn** in view of the amendment to claim 1 as stated above.
5. The rejection under 35 U.S.C. 103(a) as being KAWATA et al in view of MOMOTA et al further in view of UETANI et al '657 is **withdrawn** in view of the amendment to claim 1 which removes the compound of Formula (I).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

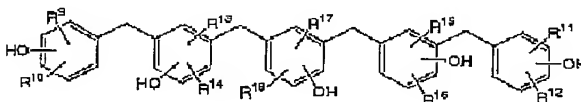
Art Unit: 1752

7. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over UETANI et al '779 in view of UETANI et al '657.

The claimed invention is drawn to a positive photoresist composition comprising

(A) an alkali-soluble resin

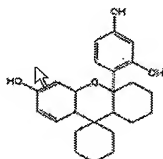
(B) a photosensitizer and a compound represented by following Formula (II):



(II)

(C) a sensitizer comprising at least one of compounds represented by following Formula

(III):



(III)

UETANI et al '779 discloses a positive photosensitive composition comprising an alkali-soluble resin, a quinonediazide ester which meets the compound of formula (II) and a polyphenol additive; see the additive in column 20, lines 56-68. The use of these additives compounds provide for enhanced sensitivity, film thickness loss, resolution, and thermal-flow resistance.

UETANI et al '779 lacks the claimed sensitizer compound of Formula (III).

UETANI et al '657 discloses a positive photoresist composition comprising an alkali-soluble resin, a quinonediazide compound and a phenol compound additive, as seen in column 4,

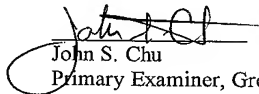
line 11-25. The additive phenolic compound meets the claimed sensitizer as claimed and provides for improved sensitivity, heat resistance and film thickness retention.

It would have been *prima facie* obvious to one of ordinary skill in the art of positive photoresist composition to use known phenolic additive sensitizer as disclosed UETANI et al '657 in place of the additive phenolic compounds as a sensitizer in UETANI et al '779 and reasonably expect same or similar results in improved sensitivities, improved developing properties and heat resistance.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

The fax phone number for the USPTO is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.


John S. Chu
Primary Examiner, Group 1700

J.Chu
December 8, 2003